INSIGHT

North Carolina's Labor and Economic Outlook

NC Quick Stats: December 2001

Labor Force	4,033,700
Employment	3,781,100
Unemployment	252,600
Unemployment Rate	6.3%

Note: Data are preliminary and are seasonally adjusted.

INSIDE

Economic Indicators in North Carolina

Economic indicators used to predict future economic activity are referred to as leading indicators, while coincident indicators are used to help determine changes in the economy that are concurrent with such indicators. All graphs reflect the most recent monthly statewide data.

Adjusted Unemployment Rates*
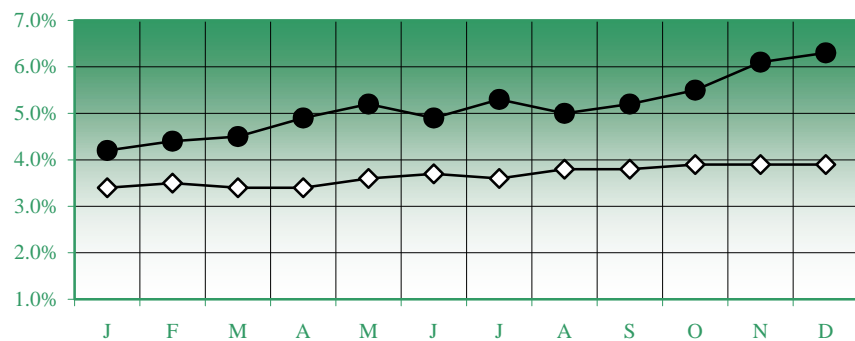
Total Nonagricultural Employment, in Thousands*
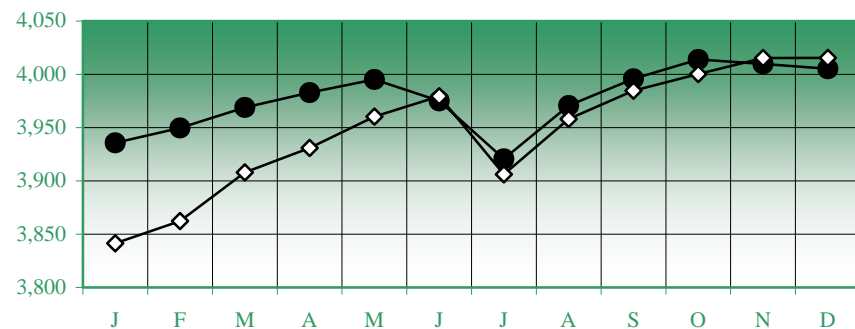
Insured Unemployment Rates*

*Source: ESC, Labor Market Information Division

Economic Indicators in North Carolina (Continued from Page 1)

● 2001   ◇ 2000

Initial Claims

Statewide, in Thousands

By ESC Local Offices

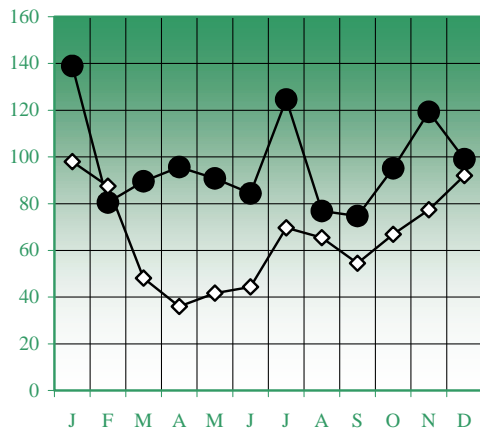|	Dec. 2001	Nov. 2001	Dec. 2000	Percent Change From Last Year
Asheville	1,865	1,347	2,045	-8.8
Charlotte	4,458	3,334	2,852	56.3
Durham	963	872	733	31.4
Fayetteville	2,377	2,077	1,615	47.2
Goldsboro	501	713	705	-28.9
Greensboro	3,604	2,927	2,060	75.0
Greenville	1,105	1,922	1,415	-21.9
Hickory/Newton	4,924	7,854	3,680	33.8
Jacksonville	382	440	408	-6.4
Raleigh	3,591	3,456	2,884	24.5
Wilmington	1,331	1,694	930	43.1
Winston-Salem	3,661	3,690	2,252	62.6

*Source: Employment Security Commission*

Average Weekly Hours Worked in Manufacturing

In Selected Metropolitan Statistical Areas

	Dec. 2001	Nov. 2001	Dec. 2000	Percent Change From Last Year
Asheville	41.0	40.9	40.9	0
Charlotte/Gastonia	40.8	40.9	42.1	-3.1
Greensboro/ Winston-Salem/ High Point	41.1	39.8	39.5	4.1
Raleigh/Durham/ Chapel Hill	41.4	41.2	41.8	-1.0

Source: Employment Security Commission

Statewide
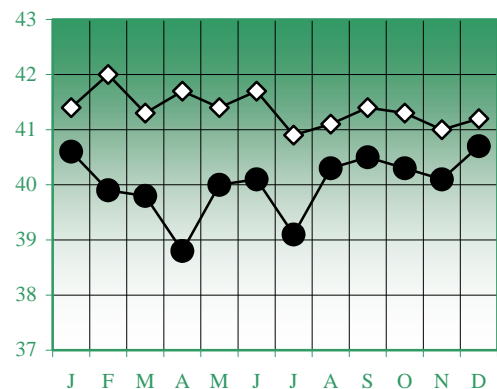
Sales and Use Tax Revenues, in Millions

Statewide

● 2000-2001   ◇ 1999-2000
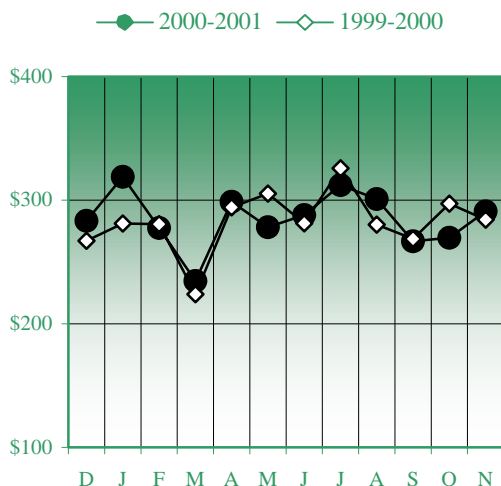
In Selected Cities

	Oct. 2001	Nov. 2001	Oct. 2000	Percent Change From Last Year
Asheville	215.6	213.4	234.3	-8.0
Charlotte	1,054.7	995.0	1,204.8	-12.5
Durham	257.5	229.8	257.1	0
Fayetteville	195.4	196.7	216.4	-9.7
Greensboro	513.5	505.0	604.8	-15.1
Greenville	124.1	134.1	131.4	-5.6
Hickory	132.8	133.5	129.0	2.9
Raleigh	618.1	575.9	669.0	-7.6
Wilmington	219.2	213.3	221.9	-1.2
Winston-Salem	359.7	365.1	378.6	-5.0

Source: N.C. Department of Revenue, Tax Research Division

Economic Indicators in North Carolina (Continued)

● 2001   ◇ 2000   ● 2000-2001   ◇ 1999-2000

New Vehicle Registrations
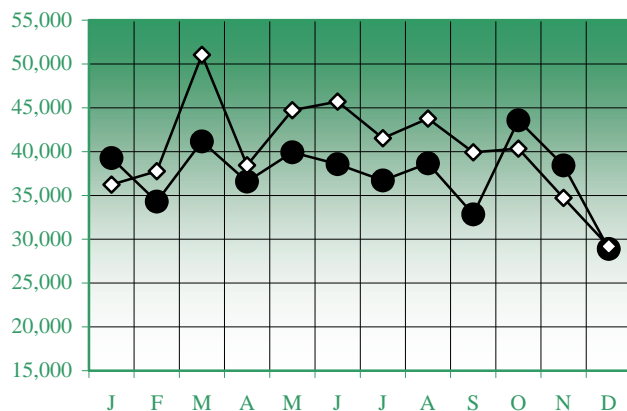
Source: NC Automobile Dealers Association

Housing Units Authorized by Building Permits

Source: US Census Bureau

Unadjusted Construction Employment, in Thousands

Source: ESC, Labor Market Information Division

Total Tax Revenues, in Millions

Source: NC Department of Revenue
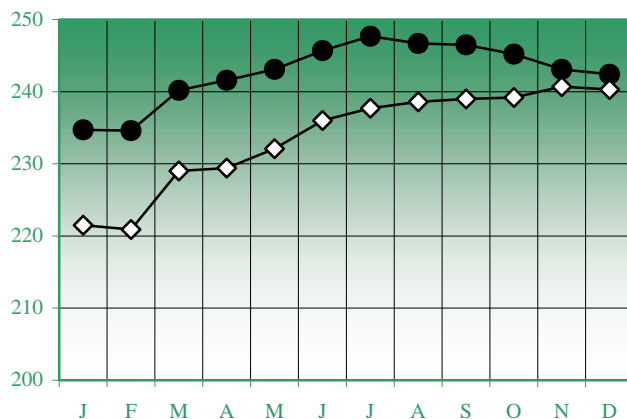
New Business Incorporations
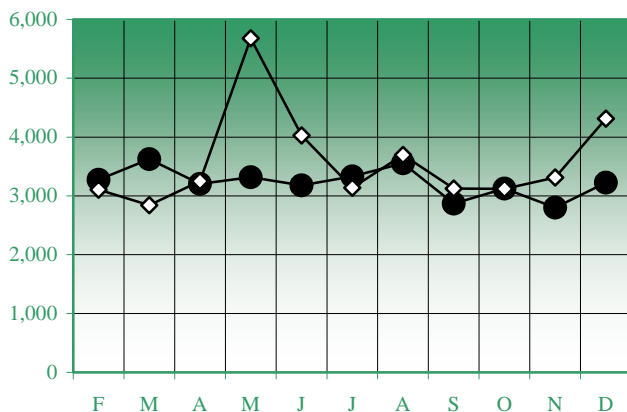
Source: NC Secretary of State, Corporations Division
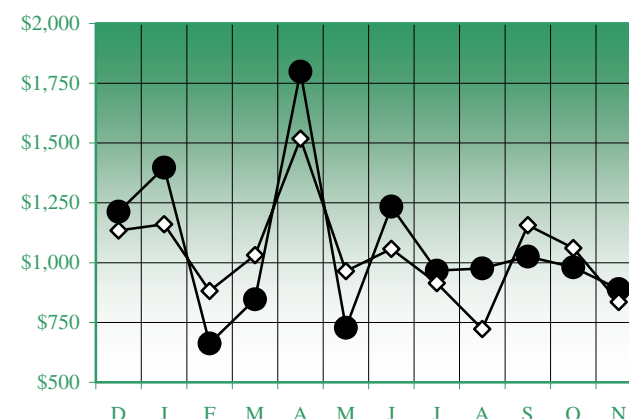
Personal Income Tax Revenues, in Millions
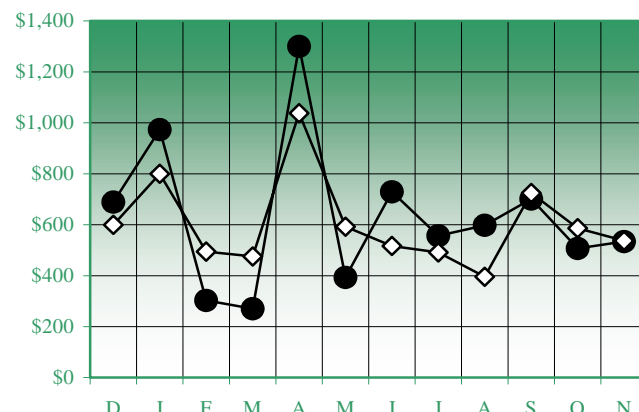
Source: NC Department of Revenue

Calculating Unemployment Rates

Each month, the Bureau of Labor Statistics (BLS) calculates the "total" unemployment rates for the state of North Carolina, metropolitan statistical areas (MSAs), all 100 counties, and other selected labor market areas within the state. The state rate is reported two weeks after the national rate is released, while county rates are reported one week after that. As with the national unemployment rate, seasonally-adjusted unemployment rates are also reported for the state, but not for the counties.

This article summarizes the procedures used in calculating state and local unemployment rates and explains the difference between seasonally adjusted and unadjusted rates. Also discussed is important labor market information that is not contained in the unemployment rates, with a brief description of another rate – the insured unemployment rate.

What is the Unemployment Rate Measuring?

An unemployment rate is calculated by dividing the number of unemployed at a particular time by the total labor force in an area. For example, in North Carolina in December 2001, there were 252,600 unemployed workers out of a total labor force of 4,033,700. Therefore, the unemployment rate was 6.3%. (These numbers are seasonally adjusted.)

The term "labor force" refers to the number of people who are either employed or unemployed in a particular region. Labor force figures only relate to people who are residents of that area and who are actively involved in the labor market. For instance, the labor force does not include children under the age of 16, retired people, people in prisons, the armed forces or other groups of people who do not choose to work, such as full-time students or homemakers.

Likewise, the term "unemployed" only refers to people who are actively seeking employment; it does not refer to people who choose not to be working. Officially, the unemployed are all persons who:
- had no employment during a particular week of the month
- were available for work
- had made specific efforts to find employment at some time within the last four weeks.

There is always some unemployment in an economy, even during boom periods. Unemployed workers are sometimes divided into three types: frictional, structural and cyclical.

- Frictional unemployment refers to workers who are entering the labor market or who are temporarily unemployed while moving between jobs. This type of unemployment is necessary in order to allow workers to find a good job match for their skills.

- Structural unemployment refers to workers who have lost their jobs because their skills are no longer valuable. Such workers include textile and apparel workers, whose jobs have moved overseas or

telephone operators whose jobs have been replaced by technology. The structurally unemployed generally face a longer period of unemployment than other groups. But, like the frictionally unemployed, they are always present in the economy.

- Cyclical unemployment refers to workers who have been laid off during a recession because demand for goods and services has decreased. These workers can expect to be reemployed as soon as the economy recovers.

It is generally believed that the sum of frictional and structural unemployment will be around 5% of the labor force. However, recently the economy has had less unemployment than this, due to the high demand for labor. Also, urban areas tend to have lower frictional and structural unemployment than rural areas because of the greater variety of jobs available.

What is the Source of Labor Force Data?

It would be extremely costly to do a census of every person in the country each month to determine how many are unemployed or in the labor force. Instead, these numbers are derived using a survey of a small sample of households, called the Current Population Survey (CPS). This survey is conducted monthly by the U.S. Department of Census for the BLS.

The CPS surveys approximately 60,000 households across the United States – 1,300 of them in North Carolina. All questions pertain to the week including the 12th, which is called the reference week; the survey is conducted the following week. Despite the small number of people surveyed, the CPS gives a reasonable approximation of the labor market data for the United States. However, sub-national survey results need to be supplemented with other demographic data that are readily available to improve accuracy.

The questions asked on the CPS were designed by the BLS to get at the exact definition of unemployment used by the government, as discussed above. People are not asked directly if they are unemployed. Instead, they are asked questions like: "Last week, did you do any work for pay?" A person must answer "no" to this question to be considered among the unemployed. However, not everyone who answers "no" is considered unemployed. A retired person, as previously stated, would not be considered in the labor market at all. However, workers who have been out sick or on vacation would still be considered employed.

Individuals must be actively seeking employment to be considered officially unemployed. In order to make sure that this condition is met, survey respondents are asked: "Have you been doing anything to find work during the last four weeks?" Among the types of active job search are visiting a public or private employment agency, mailing out resumes, contacting employers directly, and asking friends or family about jobs. Reading the ads in the newspaper or on the internet is not considered to be an active type of job search.

Estimating Statewide Data

In order to increase the accuracy of the labor force data for the state and local areas, other information is used along with the CPS. One example would be the number of claimants in the Unemployment Insurance (UI) system. Another, employment data from the Current Employment Statistics (CES) program is incorporated at the state level and for larger MSAs. (The CES program is a monthly survey of 15,000+ establishments in North Carolina used to determine the number of jobs that existed in the state during the week that included the 12_{th} of the month.)

Because of the small sample size of the CPS at the state level, there is a possibility of a large sampling error, or "noise" in the raw data. To eliminate this noise, a "signal-plus-noise" model is used. The signal represents the true unemployment rate. It is derived from the historical relationship between the unemployment rate and the following components:
- the claims rate for the month, which is the ratio of the number of continued UI claimants to the level of CES employment
- a time trend
- a seasonal (monthly) trend.

Since there may be structural changes in the relationship between unemployment and either the claims rate, trend, or seasonal components, a procedure to identify these changes is used. This procedure, called a Kalman filter, compares the predicted unemployment rate using the prior month's model to the current month's rate derived from the CPS. The level of employment is estimated in a similar way, using CES estimates of employment instead of the claims rate.

There are two subsequent updates made to the estimates of unemployment rates. First, estimates are revised one month later in light of more complete CES and UI data. Second, at the end of the year, the estimates for the entire year are updated based on more complete data that include:
- updated population estimates
- any state-specific economic events during the year that may become apparent
- CES data that have been benchmarked to more precise data
- estimates on unemployment rates and employment in subsequent months
- annual average CPS estimates.

Estimating Local Area Data

For smaller areas, like counties, the CES data are unavailable. Instead, there is greater reliance on UI claims data, Census population data and Employment and Wage (202) Program data, which provides an exact count of employment in the state. (The 202 data are employment numbers reported quarterly by employers for UI tax purposes. These data represent the true universe of North Carolina UI covered employers and employment.) Estimates of current employment are derived from the trend of these data sources for the last several years.

The method of calculating unemployment at the local level is referred to as a "building block" approach. Basically, the unemployed are divided into three groups and estimates are made of each of these groups. The three groups are "job losers," "new entrants," and "reentrants into the labor market." UI claims give a good estimate of the first category. For the other groups, 202 and Census data are used. For instance, new entrants will be related to the proportion of young people in the area's population.

Estimates are generally made for larger labor market areas (LMAs), and then disaggregated to county- and local-level estimates. The disaggregation procedure uses decennial Census data and UI claims data to apportion LMA estimates to the local areas. In addition, an "additivity" procedure is used to make sure that the sum of the employment and unemployment data for the LMAs equals the statewide levels.

The estimates of unemployment rates for counties are not as precise as for the more populous areas. Because of this, month-to-month changes in unemployment rates for small counties might show greater fluctuations than what is actually occurring.

What are "Seasonally Adjusted" Unemployment Rates?

A seasonal adjustment is a statistical technique that eliminates the predictable influences of recurring seasonal events from the labor force data. Sources of seasonal factors affecting employment and unemployment include:
- changes in weather that impact construction and agriculture
- holidays
- school breaks.

By removing these seasonal impacts, one can more easily see month-to-month changes in the unemployment rate that are due to other factors, such as the business cycle or industry trends. The importance of this can be seen in Figure 1, which shows the monthly unemployment rates in North Carolina in 2001. The non-seasonally-adjusted unemployment rate is more variable and shows no clear trend over the year. The seasonally-adjusted rate, on the other hand, shows clearly the upward trend in the unemployment rate over the year due, in part, to the economic slowdown in manufacturing that occurred at the end of the year.

Figure 1: North Carolina Monthly Unemployment Rates, Jan.-Dec. 2001
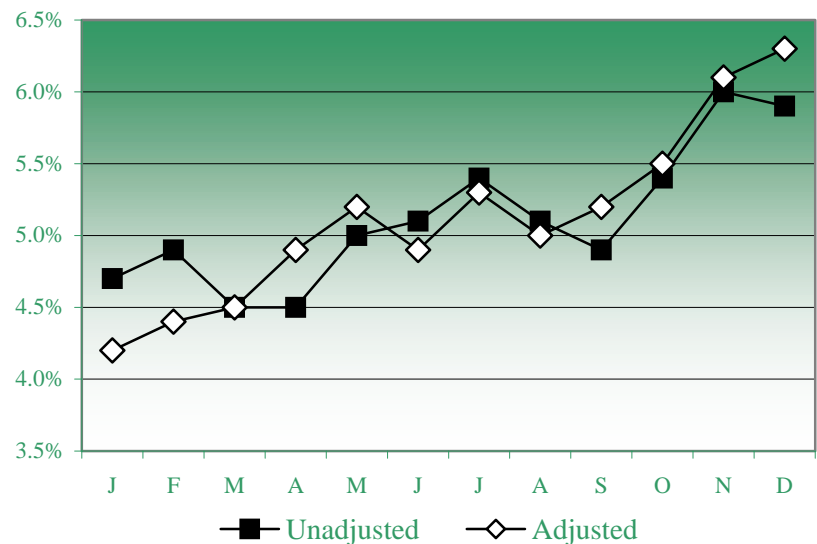
Figure 1 also shows which months have strong seasonal effects on unemployment. This information is summarized in the following table:

Months when seasonal factors increase unemployment	January, February, June, July
Months with negligible seasonal factors	March, August
Months when seasonal factors decrease unemployment	April, May, September, October, November, December

The timing and size of these seasonal factors are particular to North Carolina. Also, these factors cannot be applied to sub-regions of the state because seasonal employment and unemployment may be different across the state; for instance, it's likely that Wilmington will have a different seasonal pattern of unemployment than Asheville.

Things the Unemployment Rates Do Not Tell Us

There are some important labor market conditions that cannot be determined simply by looking at the unemployment rates each month. Among the most important of these are the following:
- Length of unemployment spells
- Demographic information: Differences by Race, Gender and Age
- Underemployment/Discouraged Workers

The seasonally-adjusted unemployment rate for North Carolina in November tells us that 6.1% of the labor force were unemployed. However, it does not tell us how many of these have been unemployed for a long period. There is always some unemployment in the economy, as workers move from one job to another or move into and out of the labor market. But this unemployment usually lasts a short time. Of greater concern is the long-term unemployment that lasts several months or years due to structural problems in the local labor markets.

There are generally differences in the unemployment rates among demographic groups in the United States. Because of the smaller CPS sampling in the individual states, unemployment rates for these sub-groups of workers are not calculated on a monthly basis at the state and local levels. However, average yearly unemployment rates based on CPS data are calculated for states and larger MSAs.

Figure 2: Average Unemployment Rates in North Carolina, 2000
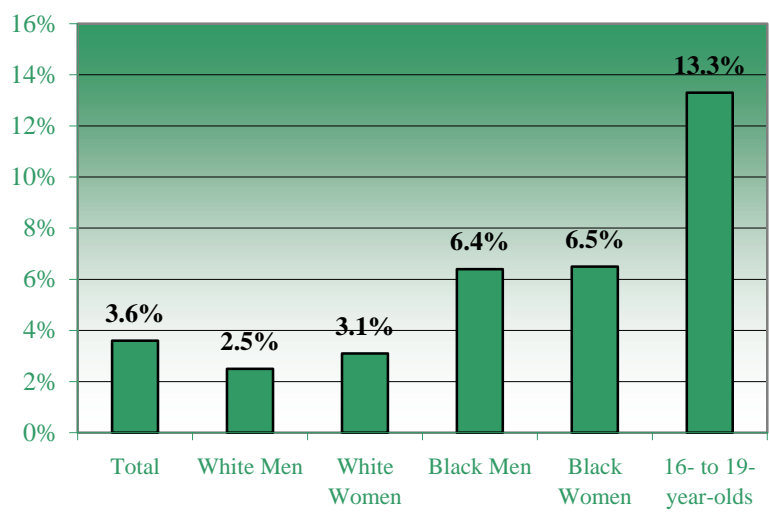
Source: Geographic Profile of Employment and Unemployment, Bureau of Labor Statistics (latest available data)

Figure 2 shows the differences among key demographic groups in North Carolina in 2000. Whites had lower rates of unemployment than blacks, while the unemployment rate of youths was much higher than the total unemployment rate in the state. However, there does not appear to be much difference in the unemployment rates of men and women within each racial group.

Given that the definition of unemployment requires individuals to earn no income in a given week and that they have been actively looking for work in a 4-week period, the unemployment rate does not measure the number of individuals in the state who are working fewer hours than they would like (the under-employed) or those who have stopped looking for work out of frustration (discouraged workers). The CPS, however, does ask individuals if they had become discouraged at looking for work: it is estimated that there were approximately 260,000 such individuals across the United States in 2000.

As for the under-employed, the CPS collects data on those working part-time, either by choice or as a result of labor conditions. These data are reported monthly on a national basis, but only yearly for the states. In North Carolina in 1999 (the most recent year for which data are currently available), there were on average 77,000 individuals working less than 35 hours due to slack work, business conditions or because they could not find a full-time job.

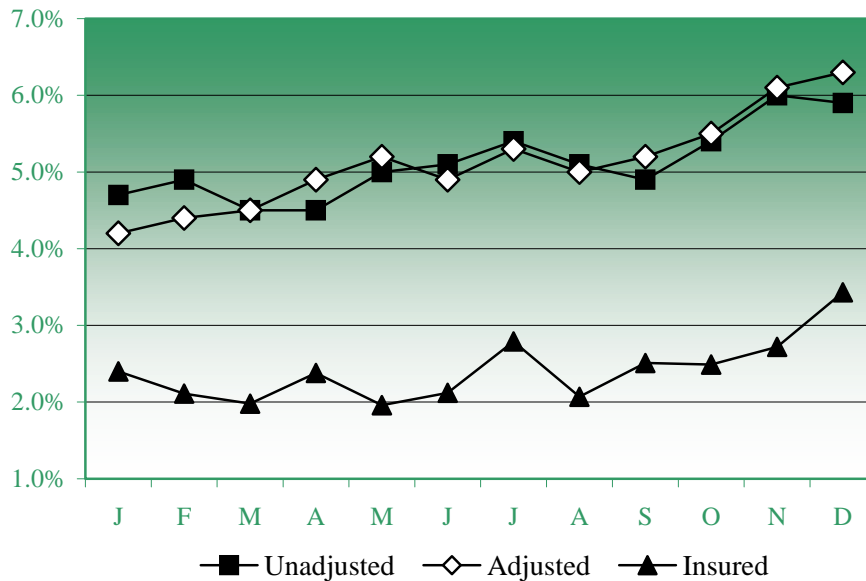**What Is the Insured Unemployment Rate?**

In addition to the "total" unemployment rates previously discussed, the Employment Security Commission also calculates an insured unemployment rate for North Carolina. This rate is based on data from the UI system. Its main purpose is to determine eligibility for extended benefits. Under current law, a state is eligible for extended benefits if its insured unemployment rate is above 5% for a 13-week period (and this rate is at least 120% of the rate in the corresponding period in each of the last two years). However, the economic stimulus package now being considered by the Congress would grant extended benefits to workers who have lost their jobs since March 2001, even if these conditions are not met.

The insured unemployment rate is calculated by dividing the monthly total number of weeks of unemployment insurance claimed by the most current level of employment covered by unemployment insurance in the

Figure 3: North Carolina Monthly Unemployment Rates, Jan.-Dec. 2001

state. As such, it only measures those people who became unemployed through no fault of their own and actually applied for unemployment benefits. This is a much smaller number than all the unemployed people in the state.

As Figure 3 shows, the insured unemployment rate was much lower than the total unemployment rate in 2001. This is typical. For instance, in the 1990-92 recession, North Carolina's monthly insured unemployment rate did not surpass 3.5%, while the seasonally-adjusted total unemployment rate peaked at 6.2% and the non-adjusted rate reached 6.8% in January and February of 1992.

Conclusion

Labor force data, such as the unemployment rate, are derived mainly from information from the CPS. However, the CPS may have a lot of sampling error, especially for the sub-national estimates. Sampling error arises mainly because the group of individuals in the survey does not adequately represent the population as a whole. Also, since the CPS is based only on the employment situation during the week of the 12th each month, it will not take into account the events that occurred at the end of the month. For example, unemployment related to the September 11th terrorist attacks did not fully show up in the September unemployment rates because the attack occurred on Tuesday during the reference week. Most of the workers who lost their jobs as a result of the attack would still have reported earnings on Monday of that week.

State and local estimates of unemployment rates and employment levels incorporate additional information, such as CES employment data, 202 employment counts and UI claims rates. However, the estimates become less precise as the population of the area gets smaller. Month-to-month changes in unemployment rates for small counties are not very accurate measures of changes in the labor market. For more precise estimates, it is better to use a yearly average of the data or simply use data from the larger labor market area that includes the county being studied.

Seasonally adjusted data are needed to compare month-to-month unemployment rates, especially around the months when seasonal factors are most important. Seasonal adjustments following BLS methodology are only available in North Carolina for the state as a whole and the four largest metropolitan statistical areas.

Although the number of unemployed individuals with UI claims is an important component of models calculating "total" unemployment rates, these data do not include everyone who is unemployed. The "insured" unemployment excludes: (1) workers who have lost their jobs but have not filed claims (perhaps because they are receiving severance pay), (2) workers who have exhausted their benefits, (3) unemployed persons who have quit their jobs, and (4) new entrants and reentrants to the labor force who do not meet the eligibility requirements to receive benefits. These factors explain why the insured unemployment rate is much lower than the total unemployment rate.
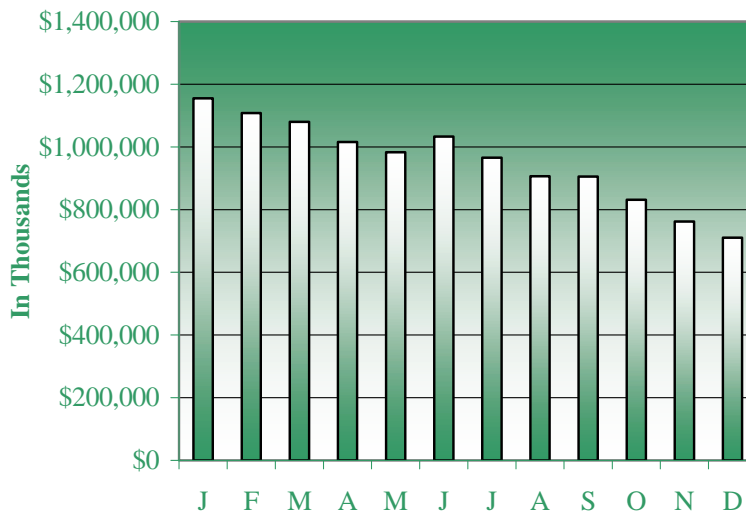
In summary, the unemployment rates may not be perfect, but the BLS makes the best use of the information available. Understanding the limitations of labor force data allows users of this information to make better

Issues in North Carolina's Unemployment Insurance System: The Trust Fund

The Unemployment Insurance (UI) Trust Fund is the source of benefits paid to unemployed workers in the state. On a quarterly basis, companies in North Carolina pay UI taxes, which are sent to the fund. The North Carolina Legislature originally designed the UI tax system so that during times of high unemployment, the Trust Fund would allow the state to provide benefits without having to immediately raise taxes on employers. This allows the UI system to be an economic stabilizer for the state economy, injecting money into the economy during recessions while raising taxes when the economy is strong. Along with providing a safety net to laid-off workers, this is the principal goal of the UI system.

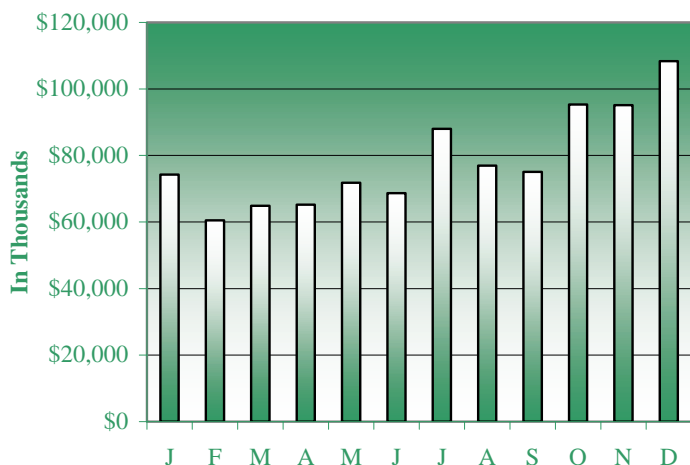**Figure 1: NC UI Trust Fund at the Beginning of Each Month, 2001**

The Trust Fund balance increased over the decade of the 1990s because unemployment was low, resulting in fewer people filing for benefits. As the Trust Fund grew, however, the Legislature initiated a series of tax cuts for positively-rated employers, which, in turn, lowered the level of the fund balance, from a high of $1.5 billion in 1995 to $1.15 billion in January 2001. To put this amount in perspective, in the last few months benefit payments have approached $100 million per month because of higher unemployment rates and the increase in claimants filing for benefits. As a consequence of the high level of benefit payments, the Trust Fund balance has fallen precipitously in the last year, as shown in Figure 1. This, in turn, will trigger increases in employer tax rates over the next few years, unless current legislation is amended.

An important point to remember, especially when comparing the current Trust Fund balance with the past, is that the liability of the system rises over time as both the number of employees in the state and their wages increase. The amount of benefit payments rose continuously over the decade of the 1990s, even though the insured unemployment rate remained fairly constant since 1992. For instance, in 2000, each 1% of insured unemployment cost $345 million. This is over twice as much as benefits would have cost in 1990. Benefit costs have risen because, in North Carolina, the maximum benefit amount is tied to the average state wage, which has risen over time: the maximum weekly benefit amount rose from $245 in August, 1990 to $396 in August, 2001, reflecting the 61% increase in the average wage. Also, the number of workers who are eligible to receive benefits rose by approximately 27% between 1990 and 2000, due to the growth of the labor force and changes in eligibility laws. Figure 2 shows the benefit payments in each month of 2001.

Figure 2: UI Benefits Paid Each Month in North Carolina

This article explains how the UI Trust Fund works in North Carolina and looks at the effects that the recent economic downturn has had on the fund balance. The current situation is placed in perspective by reviewing the historical levels of the Trust Fund balance and employer UI tax rates.

Using the Trust Fund to Pay Benefits

Over time, the level of the Trust Fund ebbs and flows as benefit payments drain away money, while employer contributions and interest earned over the year flow into the balance. Figure 3 represents these activities over the year 2000. In January 2000, the Trust Fund balance was at $1.25 billion. During the year, approximately $500 million was paid out in benefits, while contributions and interest added $400 million. Therefore, at the end of the year, the Trust Fund balance had declined by about $100 million. Although the current economic downturn hit North Carolina in the 4th quarter of 2000, the year as a whole was typical of the low unemployment that the state has experienced over the last few years.

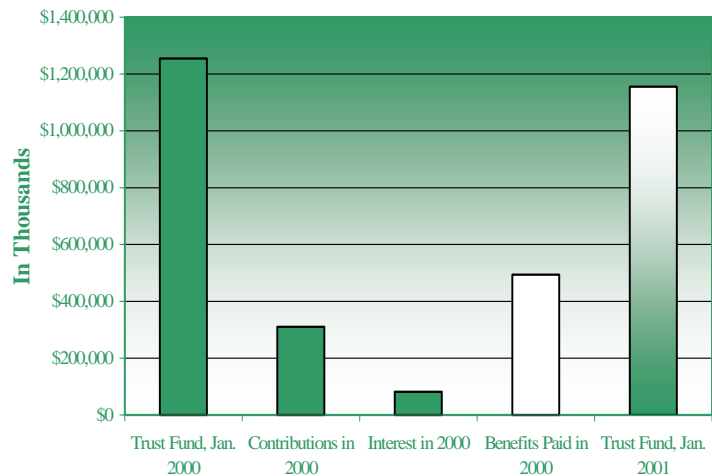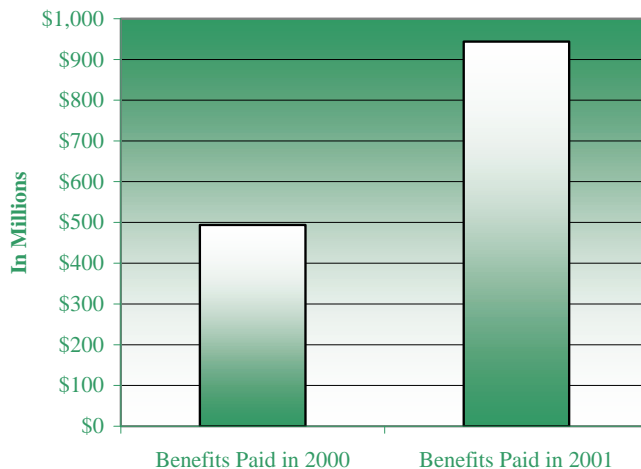**Figure 3: Trust Fund, Jan. 2000+Contributions+Interest-Benefits Paid = Trust Fund, Jan. 2001**

Figure 4: Comparison of Benefits Payments in 2000 and 2001

By the fall of 2001, the unemployment rate had risen sharply, resulting in even higher monthly unemployment benefit payments. December recorded the highest outlay of benefit payments ever (over $108 million). As Figure 4 shows, benefits in 2001 have been $450 million more than in 2000. This level of payouts will likely continue for several months. (December 17, 2001 showed a single day record payout of $10 million.) On the flip side, contributions in 2001 have not increased significantly over the previous year because, with no tax rate increase, contributions do not fluctuate much from year to year. As a result, the Trust Fund has declined by approximately $540 million since the beginning of the year, to a level of just under $615 million on December 31, 2001.

Determining Tax Rates: The Experience Rating System

The federal government requires that states use an experience rating system for establishing employer tax rates. This system is designed to be similar to auto insurance premium rates. Typically with auto insurance, premiums decrease for drivers with good records, while drivers with poor records receive higher premiums. Under an experience rating system, businesses that lay off few workers are rewarded with lower tax rates than businesses that tend to lay off many workers. This system helps avoid the "moral hazard" associated with insurance by punishing companies that attempt to take advantage of unemployment compensation.

When an employer begins operation in North Carolina, a UI account is created. All UI taxes paid by the employer are credited to this account. (New companies have the option of waiting up to three years before entering the rating system. These non-rated accounts will have a tax rate of 1.2% in 2002.) To obtain the business's "credit ratio" in subsequent years, the account balance is divided by the company's taxable wages over the 3-year period ending June 30th of the preceding year.

As a company's credit ratio grows, its tax rate falls, eventually to 0%. However, any benefits paid to its unemployed workers are charged to the company and subtracted from the account balance on a dollar-to-dollar basis, plus a 20% additional charge. (This additional charge is required to cover the costs of benefits that are not charged to any particular company, such as benefits paid to workers whose employer has gone bankrupt.) For example, if a claimant who was laid off files for UI benefits and receives $1,000 during his unemployment spell, then $1,200 is subtracted from the account of the business to which the benefits were charged.

Taxable Wage Base, 1996-2001

Year	Amount
2001	$15,500
2000	$14,700
1999	$13,900
1998	$13,200
1997	$12,100
1996	$11,600

It is possible that the balance in a given company's account can be negative if charges outweigh tax payments over the years. Such accounts are called "negatively-rated." As of the year 2000, approximately 6% of all businesses in the state had negatively-rated accounts. All other rated accounts are referred to as "positively-rated."

During the year, an employer's tax rate is applied to the taxable wages of each of the company's employees. Taxable wages are all wages earned in a year with this employer, up to the taxable wage base. In North Carolina, the taxable wage base is set at one-half the average wage in the state as of August 1st of the preceding year. In 2002, the taxable wage base will be $15,500, up from $14,700 in 2001. If an employee changes employers during the year, credit for wages earned to satisfy the taxable wage base do not carry over from one employer to the other.

Future Tax Rate Changes as a Result of the Economic Downturn

As mandated by federal law, the Trust Fund can only be used to pay benefits. It cannot be used even to pay administrative costs within the Employment Security Commission. In recent years, new reemployment programs have been implemented to better serve UI recipients. Legislation was required to transfer revenue designated for the Trust Fund to help pay for these programs.

The Training and Reemployment Contribution fund will not be continued in 2002.

The Training and Reemployment Contribution is an example of such legislation. Under this change, employer tax contributions were cut by 20%. However, an additional 20% tax was added to each employer's account for the Training Program, creating no net change in employer taxes. In 2000 and 2001, this money was used to create a Training and Reemployment Account. This account was used mainly to pay for Community College retraining programs, but a portion was used to pay for related Employment Security activities. As determined by recent legislation, the Training Program will not be continued into 2002 due to the declining level of the UI Trust Fund.

The most significant tax change will likely occur in calendar year 2003. In 1999, a revision in the Unemployment Insurance Law reduced tax rates for businesses with positively-rated accounts by 50% as long as the Trust Fund remained above $800 million on August 1st (the computation date) of the previous year. Should this level be below $800 million on a computation date, approximately 80% of businesses in the state will be affected by this tax

rate change. Given that the level of the Trust Fund fell below $800 million in October, it is unlikely that it will be above this amount on August 1, 2002 without legislative or congressional action.

In the late 1980s, the State Legislature created the North Carolina Worker Training Trust Fund (also called the Reserve Fund), which has set aside $200 million for use in paying benefits should the Trust Fund be depleted. However, current law states that if portions of this Reserve Fund are used and this amount subsequently falls below $163,349,000 (1% of taxable wages in 1984), then a 20% surcharge will be added to employer taxes. Also, it should be noted that an automatic transfer of these funds to the Trust Fund was not written into the law. The ESC has recently advised that the Reserve Fund should be used to pay benefits to keep the Trust Fund from being depleted.

The Reserve Fund may need to be utilized in 2002 to avoid higher employer tax rates.

As a consequence of the declining Trust Fund, the recent trend in reducing tax rates and diverting Trust Fund contributions to other programs is designated to be halted and reversed. The ESC programs most likely to experience cuts include the Reemployment Initiative (a program designed to help UI recipients return to work as quickly as possible) and local office staffing.

Federal Relief Programs

Due to the recession and events of September 11th, the federal government has proposed measures to provide more relief to laid-off workers. Different proposals have been offered by the President, the Senate and the House of Representatives, and these groups are currently working on a final compromise to this Economic Stimulus bill.

All proposals to provide relief for laid-off workers include a 13-week extension of unemployment insurance benefits.

One of the proposals related to the UI system is to grant extended benefits to workers who have been laid off since March. This grants 13 weeks of additional unemployment benefits to workers beyond the normal 26 weeks. This would affect North Carolina's Trust Fund if the states are required to pay for 50% of these benefits, which is the typical policy on extended benefits. However, discussions on the proposal call for full reimbursement by the Federal government.

Both the President and the House of Representatives propose increasing the amount of Reed Act distributions to the states, which could greatly replenish North Carolina's Trust Fund. When the federal government collects a surplus in its annual employer tax, called the FUTA, it can decide to distribute those funds to the states' trust funds (as proposed by the Reed Act). In recent years, the majority of the surpluses in the FUTA have been kept by the federal government. The distributions to North Carolina could be around $300 million in each of the next few years.

The Reed Act controls the distribution to the states of surplus unemployment insurance taxes collected by the federal government.

Historical Trust Fund Data

The current situation of the Trust Fund can be compared with data from past economic crises in the state. The worst economic conditions experienced since the Great Depression occurred during the recessions of 1975-76 and 1982-83. These recessions were relatively deeper than the current one. In addition, these years were preceded by several years of poor economic performance.

As Figure 5 shows, tax rates have been on a general downward trend since the 1950s, with the exception of the years immediately following the recessions of the 1970s and 1980s. In 1996, tax rates on all positively-rated accounts were set at 0%, effectively reducing the average tax rate to its lowest historical level (.22% of total wages). This tax cut was in response to the high Trust Fund balance.

Figure 5: Average Tax Rate as a Percentage of Total Wages*
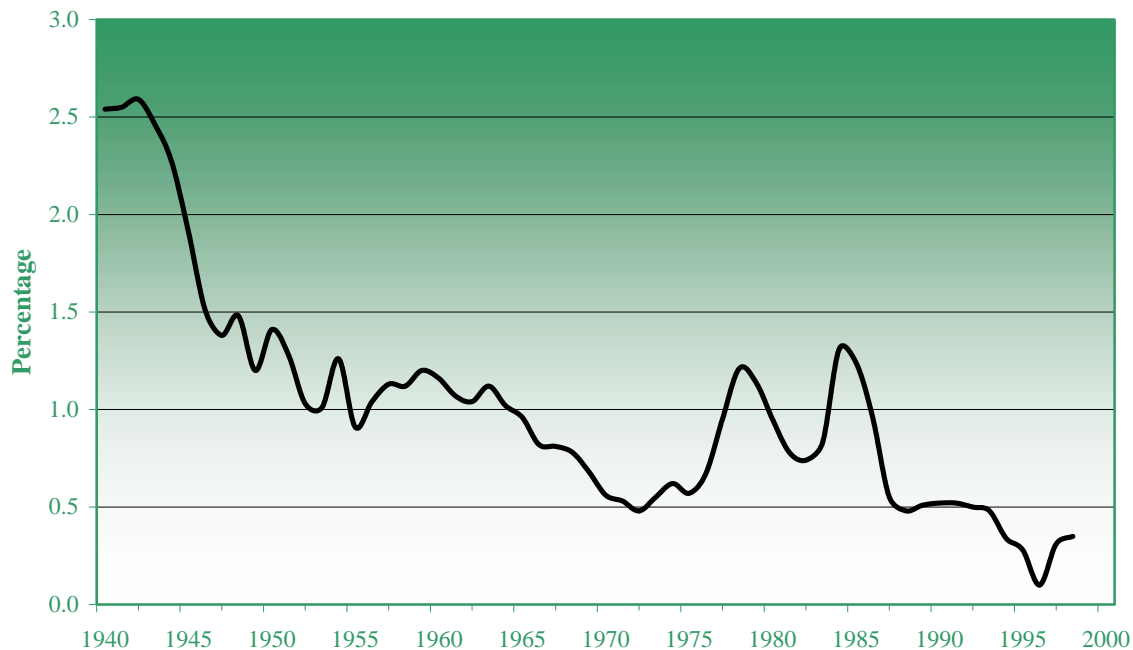
The depletions of North Carolina's Trust Fund during the recessions of the 1970s and 1980s led to increases in average tax rates, as shown in Figure 5. However, these increases occurred after the recessions were over. The increase in taxes in the 1970s began in 1977, while the increase after the 1982-83 recession began in 1984. (Total contributions in 1984 were 77% higher than in 1983.) This lag is important in delaying tax increases until the recession has ended, so that businesses are not discouraged from hiring workers. A similar lag is in place in the current system; therefore, there will not be significant increases in tax rates in 2002. wages). This tax cut was in response to the high Trust Fund balance.

Figure 6 shows the North Carolina Trust Fund balance at the end of each year from 1940 to 2000. This chart shows that the balance has been much larger in the 1990s than at any other time. It also shows the sharp declines during the recessions of the 1970s and 1980s. However, this graph may be deceptive because it does not take into account the larger liabilities of the system in more recent years (more insured workers and higher benefit payments).

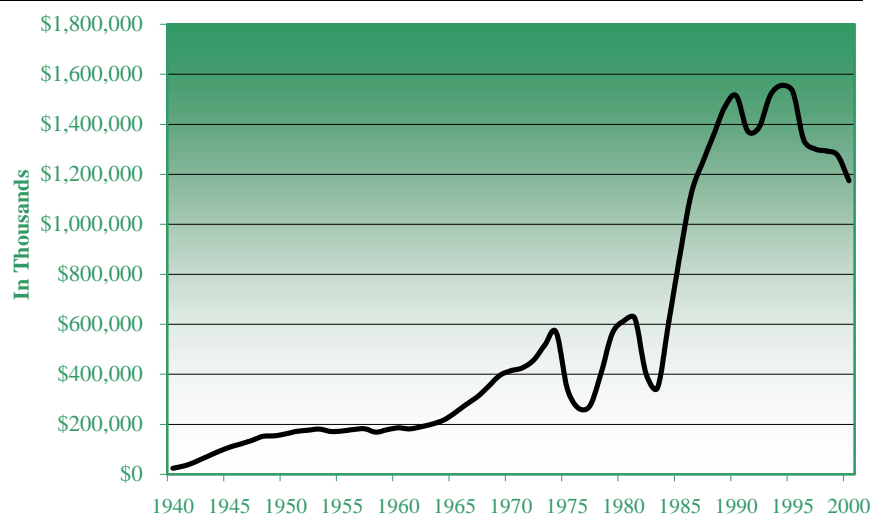**Figure 6: North Carolina UI Trust Fund Balance on Dec. 31, 1940-2000***

Figure 7 shows the Trust Fund balance as a percentage of the respective year's covered wages; this allows a comparison of the balances in different years because it takes into account the greater liabilities in later years. North Carolina's balance was relatively high through the 1960s, allowing it to fund the high unemployment of the 1970s and early 1980s. In the 1990s, the Trust Fund balance (as a percentage of total wages) was allowed to gradually decline. At the end of 2000, the balance was 1.17% of total wages, which was lower than in any other year.

Figure 7: NC UI Trust Fund Balance on Dec. 31 as a Percentage of Yearly Covered Wages*
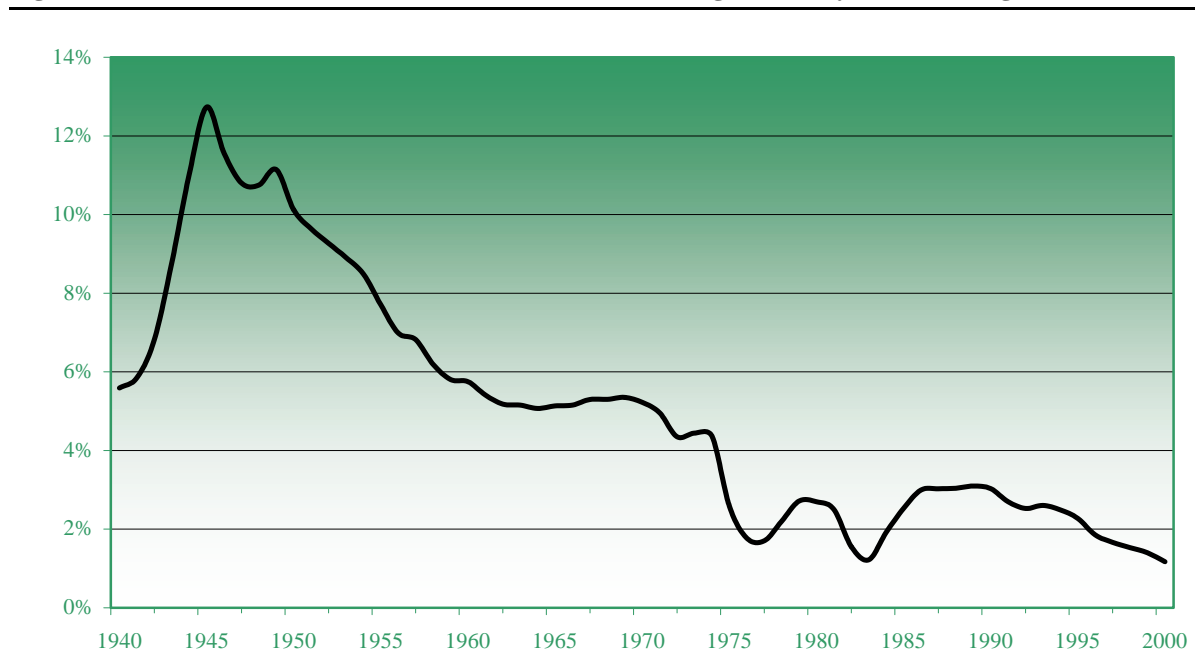
By maintaining the relative size of its Trust Fund through the 1960s, North Carolina was able to avoid bankruptcy during the later recessions. Table 1 lists the states that were forced to borrow money from the federal government to finance their benefit payments either during or immediately after the three largest recessions of the last 30 years. As a result of the recessions of 1975-76 and 1982-83, twenty states were forced to borrow funds, while four needed to borrow due to the 1991-92 recession.

Table 1: States that Borrowed Funds as a Result of the Given Recession

1975-76	1982-83	1991-92
AL, AR, CT, DE, HI, IL, ME, MD, MA, MI, MN, MT, NV, NJ, NY, OR, PA, RI, VT, WA	AR, CO, CT, DE, IL, IA, KY, LA, MI, MN, MO, MT, NJ, OH, PA, RI, TX, VT, WV, WI	CT, MA, MI, MO

Measuring Solvency and the Cost of Bankruptcy

The Trust Fund is not legally required to maintain a given level of solvency. However, it is general practice to maintain a high enough balance to cover the costs of the next economic downturn. This section covers a few of the measures of solvency and the costs associated with negative balances. These solvency measures are also a good way to compare the trust funds of different states.

The federal government reports measures of solvency for North Carolina's Trust Fund, as well as those of other states. These measures attempt to determine if the state's Trust Fund is large enough to weather an

economic condition as bad as the worst years experienced in the past, while taking into account the higher liabilities that exist today. For example, a measure called the High Cost Multiple (HCM) is calculated by first determining the 12-month period with the highest benefit payments as a percentage of total wages. (In North Carolina, this would be 1975, when this ratio was approximately 2.46%.) Then, this ratio is multiplied by the current total wages to obtain an approximation of how high benefit payments would be today. The Trust Fund balance is divided by this number to derive the HCM. At the end of the first quarter of 2001, North Carolina's HCM was .42, implying that if unemployment were as bad as in 1982, the state's Trust Fund would be able to pay out approximately 5 months of benefits.

A similar measure is the Average High Cost Multiple (AHCM), which takes the average of the three highest payments-to-total wages ratio in the last 20 years. (This is approximately 1.16%.) The AHCM was .89 in the first quarter of 2001, suggesting that the Trust Fund would be able to meet payments for nearly 11 months. There were 17 states that had a lower AHCM than North Carolina. Texas had the lowest score.

Adjusted Unemployment During Periods of Recession
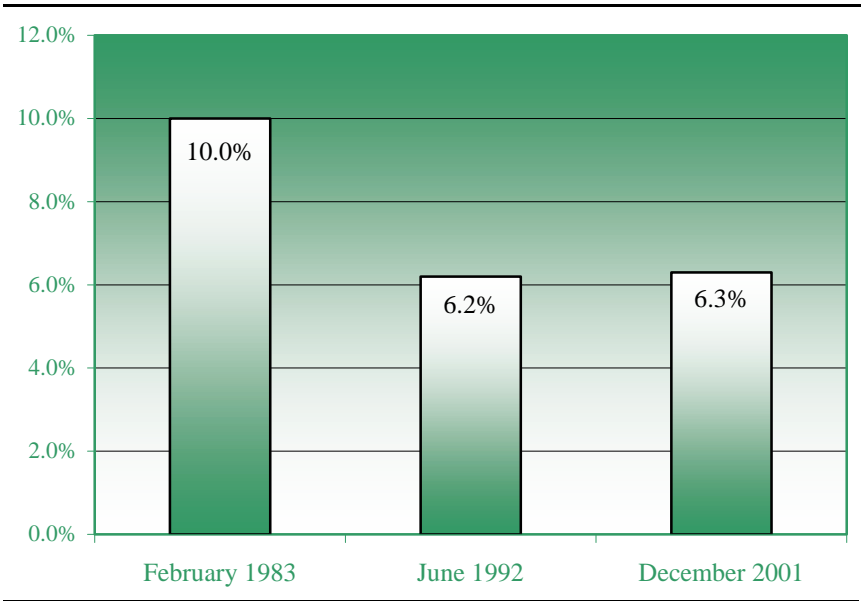
Typically, the Employment Security Commission of North Carolina has measured the solvency of its UI Trust Fund by evaluating the current cost of undergoing the high unemployment rates experienced in the recessions of 1982-83 and 1991-92. Unfortunately, the current economic slowdown has produced unemployment rates in the state as high as during these recessions. If this continues and the state experiences the same unemployment rates in 2002-2004 as existed in 1990-92, the Trust Fund will barely remain solvent during these years.

A zero balance in the Trust Fund could adversely affect North Carolina's economy.

When states reach a zero balance in their trust funds, they can borrow from the federal government. The interest rate on these loans is equal to the rate earned by the Unemployment Trust Fund in the fourth quarter of the previous year, which has been approximately 6.5% in the last several years. UI taxes are used to repay the principal of the loan, but other state funds must be used to pay the interest. If the state repays the loan by September 30th of the same year, there is no interest charged. If the loan is not repaid after two years, the FUTA tax on employers in the state is increased incrementally by 0.3% each year. (The FUTA tax is currently 0.8% on the first $7,000 of each employee's earnings.)

Conclusion

Current projections of the level of the UI Trust Fund assume the economy will recover slowly over 2002 and return to an unemployment rate that is

slightly higher than that experienced in the 1990s. Under these conditions, the level of the Trust Fund will bottom out at approximately $400 million at the end of 2002, before recovering. Employer contributions will increase from $436 million in 2002 to $776 million in 2003, as the tax changes discussed earlier take effect (mainly the removal of the 50% cut for positively-rated accounts).

These projections depend on the accuracy of certain predictions for the next few years. The most important of these is the insured unemployment rate, which measures the claims volume as a fraction of the number of insured workers in the state. It is expected that the insured unemployment rate will average 2.5% through the first quarter of next year, and fall slowly over 2002. If this figure remained above 2% for a longer period, benefit payments would increase substantially.

The Trust Fund is projected to bottom out at approximately $400 million in December 2002.

Another important parameter is the growth rate of the average weekly benefit amount. This could increase more than expected if a larger fraction of high-income workers begin receiving benefits. This could become a reality, as the severance pay received by laid-off high-tech workers comes to an end, allowing them to receive UI benefits.

Other parameters that must be estimated are the growth rate of employment covered by unemployment insurance and the growth of real personal income. These parameters, however, are not as important in predicting the Trust Fund balances in the future as the insured unemployment rate.

Trust Fund solvency is of main concern of the ESC administration.

North Carolina's UI Trust Fund has been able to provide benefits to workers during a time when monthly payments are at record levels without having to raise employer tax rates during the economic downturns. It is likely that the Trust Fund will remain solvent if the current recession ends within the next 6 months. However, effects of the economic slowdown on the Trust Fund will be felt for several years, as future tax rates will be increased to rebuild the Fund and certain reemployment programs will be cut back.

*Source: UI Financial Data Handbook (1940-1998 data) and UI Data Summary (1999, 2000), US Department of Labor
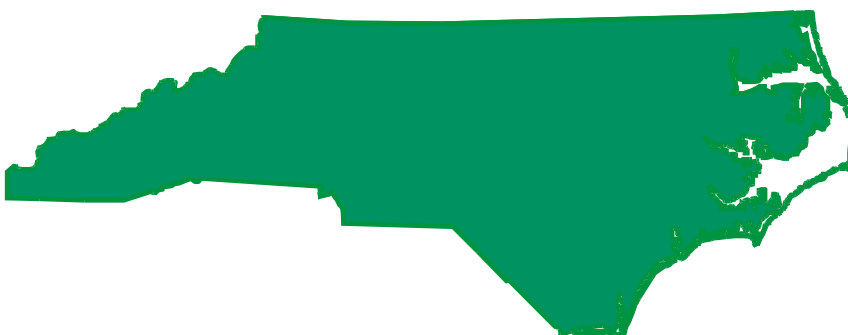
Steps in Determining an Employer's Tax Rate for 2002.

In order to illustrate how UI taxes are calculated, data for an imaginary company are used.

Step 1: Determine the rate schedule for 2002 by calculating the Fund Ratio.

The fund ratio is the total amount available for benefits in the UI Trust Fund on the computation date divided by the total taxable payroll in the state for the 12-month period ending June 30, 2001. Total taxable wages in North Carolina over this period were approximately $45 billion and the Trust Fund balance on July 31$_{st}$ was $913 million. This gives a ratio of 2.03% for 2002.

According to Table 1, Schedule B is in effect for 2002. This schedule has higher tax rates for positively-rated accounts than Schedules C - I, but lower tax rates than Schedule A. This can be seen in Table 2. This is designed so that when the Trust Fund balance declines (as a percentage of taxable wages), tax rates increase.

Step 2: Calculate the company's credit ratio (or debit ratio if its account balance is negative).

A company's credit ratio in 2002 is the ratio of its credit balance as of July 31, 2001, to the company's total taxable payroll for the previous 3-year period, ending June 30, 2001. Suppose the company had a credit balance of $1800 and $120,000 in taxable wages over the relevant 3-year period. Then, its credit ratio would be 1.5%.

Step 3: Determine the company's tax rate.

Table 2 shows that the tax rate for the company will be 1.70%.

Step 4: Apply any tax rate cuts in effect for 2002.

The 50% tax rate reduction for positively-rated accounts will be in effect in 2002. Therefore, the company's tax rate will be reduced by half, to 0.85%.

Step 5: Calculate the taxable wage base for 2002.

The taxable wage base for 2002 is calculated by taking one-half the average yearly wage in North Carolina for the year 2000, rounded to the nearest $100. This gives the taxable wage base of $15,500 for 2002.

Step 6: Calculate the company's taxable wages.

In reality, the company would report the total wages of each employee on a quarterly basis. But just to show the example, suppose the company pays the following wages over the year:

	Total yearly wages	Taxable wages
Employee 1	$32,000	$15,500
Employee 2	$25,000	$15,500
Employee 3	$14,200	$14,200
Total	$71,200	$45,200

Step 7: Calculate the company's taxes.

The company's total taxable wages over the year are $45,200. The tax rate of 0.85% would be applied to this amount, so the company's overall tax would be $384.20. Again, in reality, the company would pay its tax on a quarterly basis.

Table 1

When the Fund Ratio Is:

As Much As	But Less Than	Applicable Schedule
---	2.0%	A
2.0%	3.0%	B
3.0%	4.0%	C
4.0%	5.0%	D
5.0%	6.0%	E
6.0%	7.0%	F
7.0%	8.0%	G
8.0%	9.0%	H
9.0% and above	---	I

Table 2

When the Credit Ratio Is:

As Much As	But Less Than	Rate Schedules (%)								
		A	B	C	D	E	F	G	H	I
0.0%	0.2%	2.70	2.70	2.70	2.70	2.50	2.30	2.10	1.90	1.70
0.2%	0.4%	2.70	2.70	2.70	2.50	2.30	2.10	1.90	1.70	1.50
0.4%	0.6%	2.70	2.70	2.50	2.30	2.10	1.90	1.70	1.50	1.30
0.6%	0.8%	2.70	2.50	2.30	2.10	1.90	1.70	1.50	1.30	1.10
0.8%	1.0%	2.50	2.30	2.10	1.90	1.70	1.50	1.30	1.10	0.90
1.0%	1.2%	2.30	2.10	1.90	1.70	1.50	1.30	1.10	0.90	0.80
1.2%	1.4%	2.10	1.90	1.70	1.50	1.30	1.10	0.90	0.80	0.70
1.4%	1.6%	1.90	1.70	1.50	1.30	1.10	0.90	0.80	0.70	0.60
1.6%	1.8%	1.70	1.50	1.30	1.10	0.90	0.80	0.70	0.60	0.50
1.8%	2.0%	1.50	1.30	1.10	0.90	0.80	0.70	0.60	0.50	0.40
2.0%	2.2%	1.30	1.10	0.90	0.80	0.70	0.60	0.50	0.40	0.30
2.2%	2.4%	1.10	0.90	0.80	0.70	0.60	0.50	0.40	0.30	0.20
2.4%	2.6%	0.90	0.80	0.70	0.60	0.50	0.40	0.30	0.20	0.15
2.6%	2.8%	0.80	0.70	0.60	0.50	0.40	0.30	0.20	0.15	0.10
2.8%	3.0%	0.70	0.60	0.50	0.40	0.30	0.20	0.15	0.10	0.09
3.0%	3.2%	0.60	0.50	0.40	0.30	0.20	0.15	0.10	0.09	0.08
3.2%	3.4%	0.50	0.40	0.30	0.20	0.15	0.10	0.09	0.08	0.07
3.4%	3.6%	0.40	0.30	0.20	0.15	0.10	0.09	0.08	0.07	0.06
3.6%	3.8%	0.30	0.20	0.15	0.10	0.09	0.08	0.07	0.06	0.05
3.8%	4.0%	0.20	0.15	0.10	0.09	0.08	0.07	0.06	0.05	0.04
4% and over	---	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00